INTERNATIONAL ATOMIC ENERGY AGENCY

INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

INFORMAL   MEETING

ON RENORMALIZATION   THEORY

25 - 29 August 1969

(SUMMARIES)

MIRAMARE - TRIESTE

September 1969

WILSON'S NON-LAGRANGIAN APPROACH TO FIELD THEORY

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A recent work of K. Wilson is discussed which proposes the following modifications of Lagrangian field theory:

I) Equal-time commutators are replaced by operator product expansion. By doing so, one avoids the ambiguous nature of equal-time commutators and preserves Lorentz covariance.

II) To have an estimate of the singular structure of the theory, Wilson proposes to determine the singularities by dimensional arguments, thereby following a suggestion of Kastrup and Mack that scale invariance is the most crucial broken symmetry in field theory.

These proposals were then applied by Brandt to renormalize theories like neutral pseudoscalar theory and quantum electrodynamics. It must be stressed that scale invariance arguments break down for vector meson theories with mass.

A recent application of these proposals to two-dimensional quantum electrodynamics brought an exact result for the equal-time commutator of the electric current and the vacuum polarization tensor.

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